

REMARKS

Claim 17 has been amended to precisely recite the process of the present invention for purifying exhaust gas from a gasoline engine of a fuel-direct-injection type to remove hydrocarbons, carbon monoxide and nitrogen oxides from the exhaust gas in terms of positive process steps that require the use of a gasoline engine of a fuel-direct-injection type and avoid an interpretation of the recitation "for purifying exhaust gas from a gasoline engine of a fuel-direct-injection type" as being only the recitation of an intended use of the process.

The remaining claims have been amended or canceled to ensure consistency with the amendments to claim 17.

In the Final Office Action dated June 11, 2008, claims 17 to 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katoh et al. (U.S. Patent No. 5,402,641; hereinafter "Katoh") in view of Ozawa et al. (U.S. Patent No. 5,075,276; hereinafter "Ozawa").

The combination of Katoh and Ozawa is insufficient to support a case of prima facie obviousness of the process of the present invention as recited in amended claim 17 because Katoh does not disclose a direct fuel-injection engine. Therefore, notwithstanding the issue of whether Katoh can be properly modified

as proposed in the Action, the proposed modification will not result in the process of the present invention in which a direct fuel-injection engine is used.

For this reason alone the rejection must be removed.

Moreover, the Office has not provided the "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" required by the United States Supreme Court in *KSR International Co. v. Teleflex Inc.* (KSR), 82 USPQ2d 1385, 1396 (2007), for the Office to support its case of alleged obviousness of applying the invention of Katoh to an engine of the fuel-direct injection type.

The Office merely states in the Final Action that it would have been obvious to apply the invention of Katoh to an engine of the fuel-direct injection type "since the recitation of such amounts to an intended use statement" (Final Action, page 4, line 1) and "the mere selection of the purification process of Katoh et al. for use in a gasoline fuel-direct-injection engine would be well within the level of ordinary skill in the art" (Final Action, page 4, lines 4-6). These are conclusionary statements and are not the "reasoning with some rationale underpinning" required for the Office to support its position.

The Office has not provided any reasoning supporting a conclusion that purification of an exhaust gas from a gasoline engine of a fuel-direct-injection type that varies between a first exhaust gas state and a second exhaust gas state as recited in the claims by removing hydrocarbon, carbon monoxide and nitrogen oxides from both the first exhaust gas and the second exhaust gas by contacting the gases with the specific catalyst as recited in the claims of the present application would have been reasonably expected by a person of ordinary skill in the art from the combination of Katoh and Ozawa.

Moreover, the Office has not provided any reasoning supporting a conclusion that a person of ordinary skill in the art would have chosen the particular components of the catalyst of the present invention from the list of materials described in Katoh as being useful for the NOx absorbent used in the process of Katoh and that the person of ordinary skill in the art would have been able to reasonably predict good results with the use of these components. All possible combinations of the different materials described as useful components of the NOx absorbent used in the invention of Katoh cannot be reasonably expected to provide equivalent results when used as a catalyst in a process as defined by the claims of the present application.

Moreover, the comparative data in the specification of the present application show that other catalysts do not provide good results in the process of the present invention and rebut any conclusion that the choice of the particular components of the catalyst used in the present invention would have been obvious. Specifically, the comparative data show that copper carried on zeolite does not provide good results in the process of the present invention. Such results cannot be expected from the description of copper in the paragraph bridging Col. 3 and Col. 4 of Katoh, in addition to "(a) noble metal ..., for example platinum (Pt) and a mixture of platinum and rhodium (Rh), (b) alkaline earth, for example barium (Ba), (c) rare-earth, for example lanthanum (La), and (d) alkaline metal, for example kalium (K), or an oxide of the element", as elements that may be carried by the carrier 6c of the absorbent useful in the invention of Katoh.

For these reasons also, removal of the 35 U.S.C. 103(a) rejection of the claims is in order and is respectfully requested.

The foregoing is believed to be a complete and proper response to the Office Action dated June 11, 2008

In the event that this paper is not considered to be timely filed, applicants hereby petitions for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

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In the event any additional fees are required, please also  
charge our Deposit Account No. 111833.

Respectfully submitted,  
KUBOVCIK & KUBOVCIK



Ronald J. Kubovcik  
Reg. No. 25,401

Crystal Gateway 3  
Suite 1105  
1215 South Clark Street  
Arlington, VA 22202  
Tel: (703) 412-9494  
Fax: (703) 412-9345  
RJK/ff/esc/ps